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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,200	08/02/2000	Hiroaki Yada	45010-02634	9100

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EXAMINER

VENT, JAMIE J

ART UNIT PAPER NUMBER

2616

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/632,200	YADA ET AL.	
	Examiner	Art Unit	
	Jamie Vent	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 3, 4, 5, 6, 7, 14, 15, 16, and 22 are rejected under 35 U.S.C. 102(b) as being unpatentable by Iso et al (US 5,612,933).

**[claim 1]**

In regard to Claim 1, Iso et al discloses a disk drive apparatus having a plurality of operation modes:

- wherein said plurality of operation modes include a plurality of operation modes in which disk rotation speeds are different (Figure 1 shows a disk apparatus with reproduction/playback modes wherein disk rotation speeds are different (standard or quadruple speed reproduction) as further discussed in Column 6 Lines 20-30); and
- said plurality of operation modes include a plurality of operation modes in which error handling modes at the time of recording and playback of data are different (Column 9 Lines 15-42 describes the various error handling modes. As disclosed each mode contains a set number of retries to correct the error before proceeding to a different mode and a different rotation speed)

**[claim 2]**

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In regard to Claim 2, Iso et al discloses a disk drive apparatus wherein said disk drive apparatus has:

- a first operation mode in which a disk rotation speed is set to be low, to which an error handling method appropriate for performing recording or playback of real-time continuous information is made to correspond (Column 2 Lines 56-59 describe the operation mode wherein the disk rotation speed is slow for proper error handling correction method); and
- a second operation mode in which a disk rotation speed is set to be higher to which an error handling method appropriate for performing recording or playback of data with high reliability is made to correspond (Column 2 Lines 48-52 described the disk rotation speed to be high (double or quadruple) in response to an error correction failure condition).

**[claim 3]**

In regard to Claim 3, Iso et al discloses a disk drive apparatus wherein the error handling method in said first operation mode is:

- an error handling method in which an upper limit of an error handling time for realizing recording or playback of real-time continuous information is determined (Column 4 Lines 20-26 describes the error handling method wherein an upper limit is set on the amount of retries is going to be completed in the error handling mode), and
- the error handling method in said second operation mode is an error handling method in which an error handling time longer than the upper limit of the error handling time in said first operation mode is permitted (Column 4 Lines 26-39

describes the error handling method to be retried a number of time and thereby set to a lower speed for an amount of time until the error is handled).

**[claim 4]**

In regard to Claim 4, Iso et al discloses a disk drive apparatus wherein in said first operation mode, when error handing is not completed within the upper limit of said error handling time, the error handing is stopped, and a recording or playback process for data which follows is performed (Column 9 Lines 15-42 describes when the error handling is not completed within the number of retries the error handling is stopped and record/playback is then performed).

**[claim 5]**

In regard to Claim 5, Iso et al discloses a disk drive apparatus wherein the upper limit of said error-handling time can be set (Figure 4 shows the setting of the upper limit to be set by determined speed playback wherein an upper limit is set by chosen recording speed as further described in Column 14 Lines 29-50).

**[claims 6 & 7]**

In regard to Claims 6 and 7, Iso et al discloses a disk drive apparatus wherein said disk drive apparatus further has a third and fourth operation mode in which a disk rotation speed is set to be high, to which an error handling method appropriate for performing recording or playback of real-time continuous information is made to correspond or set to low, to which an error handling method appropriate for performing recording or playback of data with high reliability is made to correspond (Column 15 Lines 19-28 describes how modes can be changed by the changing of disk rotation speed and thereby having an operation mode in which disk rotation is set to high and low, as previously disclosed in Claim 2).

**[claim 14]**

In regard to Claim 14, Iso et al discloses a disk drive apparatus wherein said disk drive apparatus performs postponing control of a head with respect to a disk on the basis of servo information in accordance with a sector servo method of sectors provided radial by partitioning the data-recording surface of the disk (Column 3 Lines 55-67 describes the control of the head with respect to the servo circuit wherein sectors provide information contained in the tracks).

**[claim 15]**

In regard to Claim 15, Iso et al discloses a disk drive apparatus wherein said disk drive apparatus has a synchronous head position detection construction for generating a servo clock on the basis of said servo information recording area and for detecting head position information while referring to the generated clock (Column 8 Lines 46-55 describe the generating of the servo clock based on the synchronizing signal at the head of each frame which thereby generates and controls the speed of the disk motor).

**[claim 16]**

In regard to Claim 16, Iso et al discloses a disk drive apparatus wherein said disk drive apparatus comprises: an information compression unit for compressing information, and an information decompression unit for decompressing compressed information, information compressed by said information compression unit is recorded on a disk loaded into said disk drive apparatus, and when compressed information is played back from the disk, a decompression process for decompressing information is performed by said information decompression unit. Figure 1 shows a cd-rom decoder for decompressing the compressed information to be outputted for playback to the CPU. Therefore, it would be inherent to have a complementary encoder for compressing data since an encoder must be present for recording of data.

**[claim 22]**

Claim 22 contains the limitations as stated in Claims 1 and is analyzed as previously discussed with respect to that claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 9, 10, 11, 12, 13, 19, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iso et al (US 5,612,933) in view of Battaglia et al (US 6,658,202).

**[claims 8]**

In regard to Claim 8, Iso et al discloses a disk drive apparatus wherein said disk drive apparatus wherein the disk drive apparatus operates in an operation mode in which the disk rotation speed is set to be low; however, fails to disclose that the disk drive can be battery driven and a removable disk. Battaglia et al discloses a portable data transfer and mass storage device for removable memory modules wherein the disk drive is "hand-held, battery-powered, portable device..." as described in Column 1 Lines 9-11. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the disk drive apparatus with varying rotation speed depending on error correction, as disclosed by Iso et al, and incorporate the disk drive to be portable and battery operated, as disclosed by Battaglia, to allow for a system that has more flexibility between various computer components, such as a computer and a camera, for easier storage and editing of data.

**[claim 9]**

In regard to Claim 9, Iso et al discloses a disk drive apparatus wherein said disk drive apparatus performs a recording or playback operation onto or from a disk in accordance with a recording or playback command received (Column 2 Lines 31-36 describes the recording or playback operation of the disk in various modes); however, fails to disclose the disk drive to be connected to a host system via a host interface. Battaglia et al discloses the disk drive apparatus that is interfaced with a host interface of a computer as described in Column 2 Lines 30-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the of the invention to use the disk drive apparatus which performs recording and playback operation onto or from a disk, as disclosed by Iso et al, and incorporate the disk drive to be interfaced with a host computer, as disclosed by Battaglia et al, to allow for easier portability and connectivity of the host computer and other devices.

**[claim 10]**

In regard to Claim 10, Iso et al discloses a disk drive apparatus; however fails to disclose that the disk drive contains an operation mode specification is the following commands added in accordance with the ATA (AT-Attachment) standard prepared by the ANSI (American National Standards Institute) and defined by the PCMCIA (Personal Memory Card International Association / IEIDA (Japan Electronics Industry Development Association). Battaglia et al discloses a portable disk drive apparatus wherein the operation mode is set to accordance with ATA sand PCMCIA standards by the ATA and PCMCIA controllers seen in Figure 3 and described in Column 4 Lines 13-26. These standards are used to utilize the control data exchange operations between the devices and the disk drive apparatus. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the disk drive apparatus with varying modes, as disclosed by Iso et al, and incorporate the disk drive



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apparatus to be of ATA and PCMCIA standards, as disclosed by Battaglia et al, to provide a more efficient data transfer between components.

**[claim 11]**

Claim 11 contains the limitations as stated in Claim 10 and is analyzed as previously discussed with respect to that claim.

**[claim 12]**

Claim 12 contains the limitations of Claim 8 and is analyzed as previously discussed with respect to that claim.

**[claim 13]**

Claim 13 contains the limitations as stated in Claim 10 and is analyzed as previously discussed with respect to that claim.

**[claim 19]**

In regard to Claim 19, Iso et al discloses a disk drive apparatus; however, fails to disclose that disk drive apparatus has a camera for photographing an image, and the image information obtained by the camera is recorded on a disk loaded in said disk drive apparatus. Battaglia et al discloses a portable disk drive apparatus that connects to a camera for photographing purposes as described in Column 1 Lines 45-50. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use a disk drive apparatus with varying operation modes, as disclosed by Iso et al, and incorporate a system wherein the disk drive is portable and usable with a camera, as disclosed by Battaglia et al, to allow for an easier process of storage and transfer of data between the computer and the camera.

**[claim 20]**

Claim 20 contains the limitations as stated in Claims 1 and 8 and is analyzed as previously discussed with respect to that claim.

**[claim 21]**

Claim 21 contains the limitations as stated in Claims 1 and 20 and is analyzed as previously discussed with respect to that claim.

Claims 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iso et al (US 5,612,933).

**[claims 17 & 18]**

In regard to Claims 17 and 18, Iso et al discloses a disk drive apparatus wherein information compressed by said information compression unit contains moving-image information compressed by MPEG2 (Motion Picture Experts Group Phase 2). It is well known in the art that moving image information to be compressed by the MPEG2 standard as a data file for recording of video data. Therefore, it would be obvious to have compressed moving image information onto the disk when video information is present in the system in order to provide further level of compression for conforming with bandwidth requirements.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

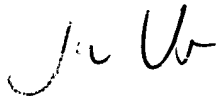
- Nagasawa (US 2001/0017978);
- Sugaya (US 5,278,712);
- Takahashi (US 5,914,928);
- Herrod (US 6,405,049);
- Kanota et al (US 6,363,211); and
- Suga et al (US 2004/0208482).

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 703-305-0378. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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12/10/04



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